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REC'D 27 OCT 2000

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Request for grant of a patent

(See the notes on the back of this form. You can also get an explanatory leaflet from the Patent Office to help you fill in this form)

1. Your reference

FLEXIBLE SURFACE COVERING

2. Patent application number

(The Patent Office will fill in this part)

9923690.3

3. Full name, address and postcode of the or of each applicant (underline all surnames)

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Patents ADP number (if you know it) 7759400001

If the applicant is a corporate body, give the country/state of its incorporation

4. Title of the invention

FLEXIBLE SURFACE COVERING

5. Name of your agent (if you have one)

"Address for service" in the United Kingdom to which all correspondence should be sent (including the postcode)

Patents ADP number (if you know it)

6. If you are declaring priority from one or more earlier patent applications, give the country and the date of filing of the or of each of these earlier applications and (if you know it) the or each application number

Country

Priority application number

(if you know it)

Date of filing

(day / month / year)

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Number of earlier application

Date of filing

(day / month / year)

8. Is a statement of inventorship and of right to grant of a patent required in support of this request? (Answer 'Yes' if:

- a) any applicant named in part 3 is not an inventor, or
- b) there is an inventor who is not named as an applicant, or
- c) any named applicant is a corporate body.

See note (d))

FLEXIBLE SURFACE COVERING

This invention relates to a flexible surface covering.

There are many surface coverings in existence varying in form and character and appearance to specific application.

Certain applications require precise aesthetic effect and some applications require curved surfaces.

Examples of curved surfaces include the decks of boats, swimming pool surrounds, curved floor plans inside and outside buildings.

Boat decking is an attractive, recognised form of surface covering which is normally formed in a resilient hardwood, like teak, with caulking between the planks of either a black or white material providing a surface with intermittent lines.

"Non-Slip" is important, as is resistance to chemicals and weathering. Swimming pool surrounds and other situations require these properties.

Natural wooden surfaces suffer considerable discolouring and wear and require regular chemical application to restore the required appearance and physical properties.

According to the present invention there is provided an assembled surface of specific synthetic materials. The surface is comprised of lengths of a specific synthetic material which is flexible which are joined edge to edge to cover the applied surface as required.

The surface characteristics of the invention are important in providing the necessary appearance and physical characteristics required for its intended applications.

The present invention is designed to imitate wood with a surface which is re-workable with the correct tools or by hand held applications.

The present invention has an optional "caulking-strip" which will eliminate the need for a material to be applied in a fluid state to fill the gaps between adjacent lengths of "planking".

The present invention also allows for the use of a fluid caulking application if preferred.

The components of the invention can be made of limitless length.

A specific embodiment of the invention will now be described by way of example with reference to the accompanying drawing in which:-

Fig. 1. Shows in perspective the assembled surface covering with an example of "caulking-strip" in place between the planks.

Fig. 2. Shows the assembled surface in a curved format.

Fig. 3-7. Shows cross section examples of methods that can be used to incorporate the "caulking-strip" into the surface.

Fig. 8. Shows a cross section where "caulking-strip" would be already formed as a co-extrusion and be part of the planking.

Fig. 9. Illustrates various examples of under-surface cross section.

Fig. 10. Shows two examples of edge profile for planks at extreme edges of the assembled surface.

Fig. 11. Shows how an abrasive tool can be used to produce the wood grain effect surface to the invention.

Fig. 12. Shows examples of the bend-ability of the surface and planking.

Referring to the drawings the surface comprises limitless lengths of a specific plastic formulation with planking of various widths and thicknesses as required 1 & 3, as shown in Fig. 1, and integral "caulking-strips" of lesser width 2. A butt, or end to end joint 4 is shown which is a small piece of the same or a different material inserted when or as required.

The component lengths of the material are flexible and can be assembled to form a curved surface as shown in Fig. 2. The component parts of the surface lends themselves to bend more readily with a raise in temperature.

The assembled surface is laid as a mat or it can be glued to the recipient under-surface with a suitable adhesive. Individual pieces of planking or "caulking-strip" or both can also be applied to the recipient surface.

The planking or assembled surface can be cut or trimmed as required with cutting implements.

The methods of locating the "caulking-strips" are various and some examples are given in Fig's 3, 4, 5, 6, 7, 8.

The planking 11 can be produced with the different coloured caulking strip 10 already affixed as a co-extrusion or moulding as in Fig. 8, as an example.

The edge profiles of the planking can be extruded or moulded in different forms 13 & 14, as shown in Fig. 10, for example.

The under and upper surfaces of the components can be cross sectional profiles as required for aesthetic and functional reasons, examples being shown in Fig. 9. The under surface profile would facilitate better adhesion to the recipient surface.

A combination of materials could be used to form the substrate between the invented surface and the recipient surface for reasons of practicality. Referring to Fig. 11, a longitudinal cross section of material and a sanding machine 16, is shown.

The wood grain effect 18, of the invention 15 is achieved by abrasion mechanically or by hand. A far superior effect is obtained by using a belt sanding machine, or similar, within certain conditions of temperature, coarseness of abrasion, speed of travel 16 of the abrasive surface, direction 17, speed of stroke across the surface, pressure and angle of attack 19.

The surface is re-workable, in that it can be re-sanded, or wire brushed, or other.

With some edge profiles the planking can be joined edge to edge without the caulking strip to form wide sections of planking. Individual lengths of planking can be curved to form borders around features as in Fig. 12. The surface is curvable in all planes and is available in any colour or colour combinations.

The invented surface can be extruded or moulded in large widths or thicknesses as required.

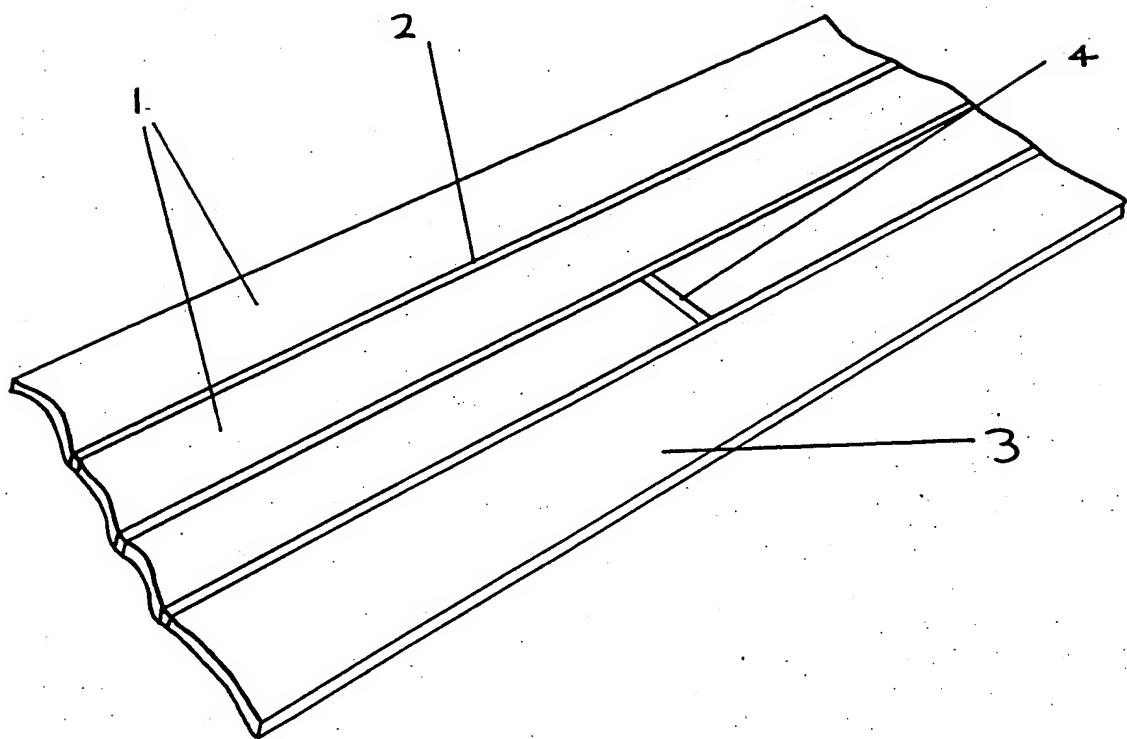
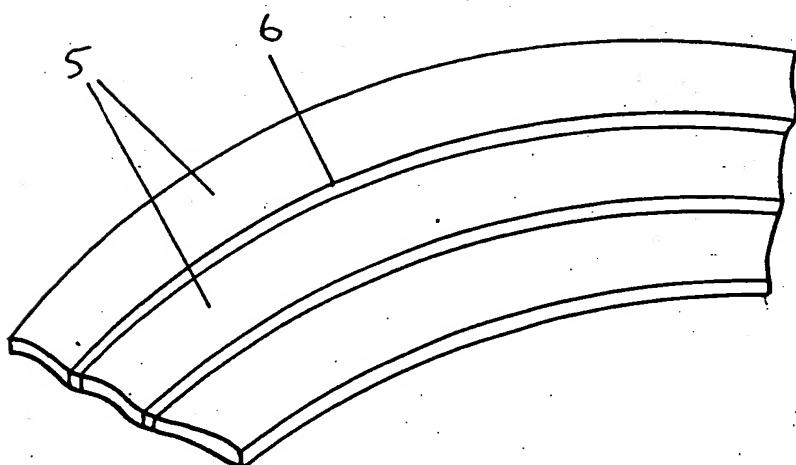
The invented surface can be produced as a "sheet" with grooves cut in afterwards which can then be "filled" or part filled with a "caulking-strip" or fluid caulking compound.

The invented surface as a sheet or larger plank can be routed out, 22, to required designs, board games or model car race tracks for example. (FIG. 13). Inserts for cut out areas could also be cut and placed.

The wide plank or sheet can be cut to fit a designated area.

The invention can be manufactured as a wide sheet with caulking strips already integrated.

3

FIG 1FIG 2

4

FIG 3

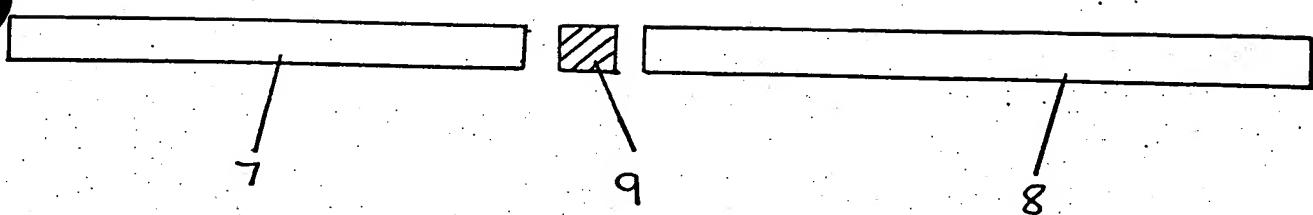


FIG 4



FIG 5

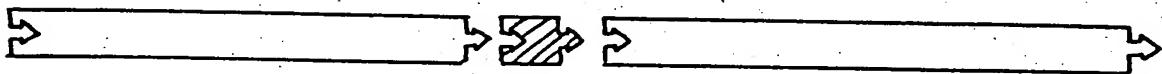


FIG 6



FIG 7



11

10

FIG 8

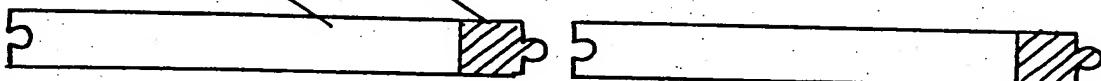
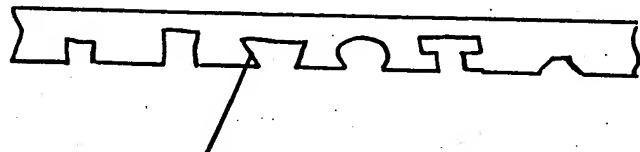


FIG 9



12

FIG 10

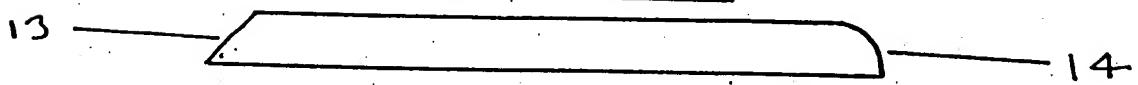


FIG 11

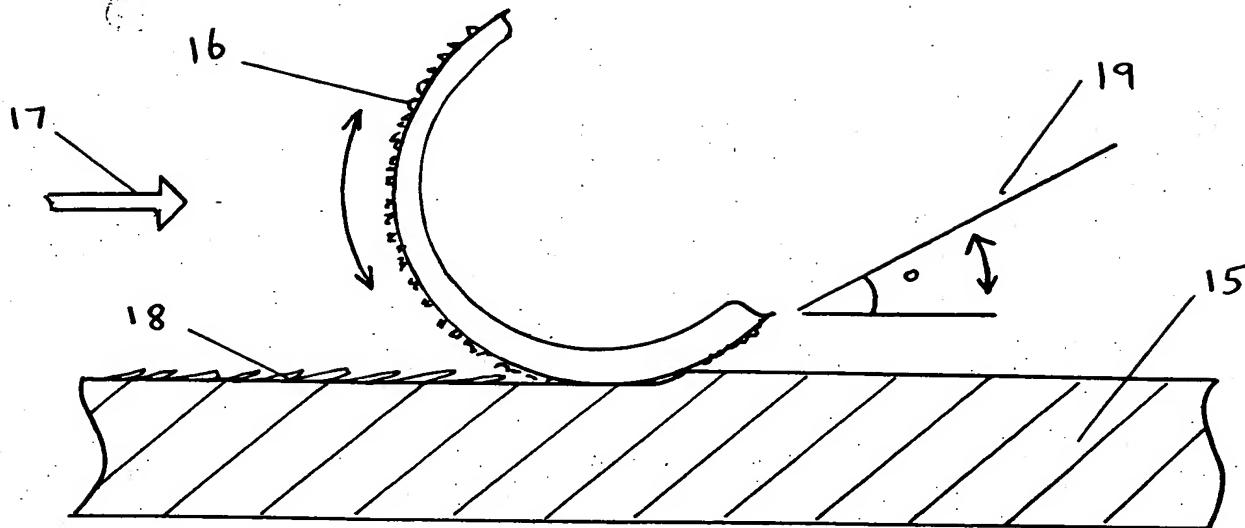


FIG. 12

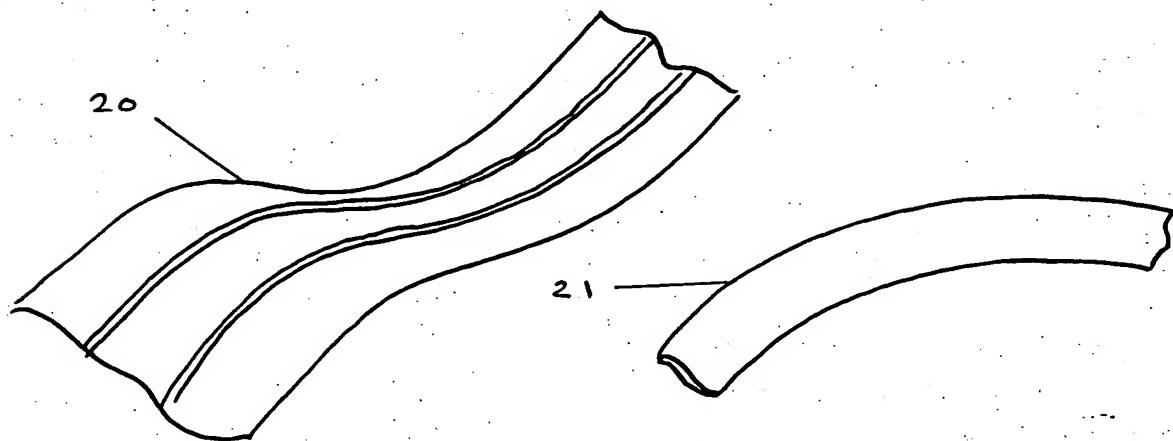


FIG 13

